Rejection of Claims 1-10, 13, 16, 26, 79-88, 91, 94, and 104 Under 35 U.S.C. §102(b)

Reconsideration is requested of the rejection of claims 1-10, 13, 16, 26, 79-88, 91, 94, and 104 under 35 U.S.C. §102(b) as being anticipated by Zhou et al. (U.S. 2002/0123538A1).

Claim 1 is directed to an article comprising an ultrasonically bonded laminated structure. The laminated structure comprises a first material, a second material, and an adhesive composition. The adhesive composition comprises an atactic polymer and an isotactic polymer. The atactic polymer has a degree of crystallinity of less than about 20% and a number-average molecular weight of from about 1,000 to about 300,000. The isotactic polymer has a degree of crystallinity of at least about 40% and a number-average molecular weight of from about 3,000 to about 200,000. The first material and the second material are dissimilar or non-bondable materials and are ultrasonically bonded together. As defined in paragraph 23 of the instant specification, the term "dissimilar" means that the materials have melting temperatures that vary by more than about 40°F, and have dissimilar molecular structures such that upon ultrasonic bonding, the materials are not brought together as one material and typically have macro-phase separation.

Zhou et al. ('538) disclose adhesive compositions comprising selected ratios of crystalline and amorphous polymers. Specifically, one adhesive composition of the invention comprises an atactic polymer having a degree of crystallinity of about 20% or less and a number-average molecular weight of from about 1,000 to about 300,000, and an isotactic polymer having a degree of crystallinity of about 40%

or more and a number-average molecular weight of from about 3,000 to about 200,000. One preferred adhesive composition blends a selected amount of isotactic polypropylene with a selected amount of atactic polypropylene.

The '538 reference also discloses methods of making laminated structures and disposable absorbent articles employing the adhesive composition. The laminated structures comprise a first layer and a second layer, wherein at least a portion of the first layer is attached to at least a portion of the second layer using an adhesive composition. The first layer, second layer, or both may comprise a variety of materials including a nonwoven, a film, a woven material, an elasticized component, or a substrate comprising cellulosic material, thermoplastic material, or both. Examples of materials or webs bonded together by the adhesive to form the laminated structures of 1538 include necked-bonded laminates (NBL)1, polypropylene, spunbonded layers, stretched-bonded laminates (SBL)2, and an outer cover comprising a polyethylene layer and a polypropylene, spunbonded layer. Additionally, the '538 reference discloses that the resulting laminated materials may be exposed to ultrasonic energy.

The '538 reference, however, fails to disclose a laminated structure comprising an adhesive, a first material and a second

¹ As defined in '538, a necked-bonded laminate substrate (NBL) generally comprises a polyethylene layer sandwiched between two polypropylene, spunbonded layers. Paragraph 59.

As defined in 538, a stretch-bonded laminate (SBL) generally comprises an elongated elastic web or elastomeric strands bonded between two spunbonded layers. Paragraph 130.

³ Zhou et al. at paragraph 59.

material, wherein the first and second materials are <u>dissimilar</u> or non-bondable materials that are <u>ultrasonically bonded</u>
<u>together</u>. These are requirements of claim 1 and are significant aspects of Applicants' invention.

In the Response to Arguments section of the final Office action, the Office asserts that Applicants' argument that Zhou et al. fail to disclose a laminated structure comprising an adhesive, a first material and a second material, wherein the first and second material are dissimilar or non-bondable materials is not persuasive as Zhou et al. teach a composition that may be utilized to bond two materials together wherein the two materials may be the same or different than each other.4 Applicants respectfully disagree that Zhou et al. teach a first and second material being dissimilar materials, as noted above, materials that are "dissimilar" are defined as having melting temperatures that vary by more than about 40°F, and have dissimilar molecular structures such that upon ultrasonic bonding, the materials are not brought together as one material and typically have macro-phase separation. As such, the "different materials" term as disclosed by Zhou et al. is not equivalent to "dissimilar materials" as required by claim 1.

Specifically, as disclosed in the instant specification, examples of dissimilar materials that can be ultrasonically bonded together utilizing the adhesive composition of claim 1 include: (1) neck-bonded laminates to pattern unbonded materials; (2) tissue to tissue; (3) spunbond meltblown to woven polyester knit; and (4) pulp fibers sandwiched between two

See page 4 of the final Office action.

polypropylene substrates. 5 A close review of the working Examples of Zhou et al., however, shows that the laminated structures made using the adhesive composition of Zhou et al. are produced using a first and second material that are similar or compatible. Specifically, the only examples of laminated structures in the '538 reference are made by bonding a polypropylene layer to a polypropylene layer. 6 For example, Example 2 uses laminates comprising a NBL bonded to a NBL. As such, the two outside polypropylene, spunbonded layers of the NBLs are adhered together using the composition of Zhou et al. Similarly, Example 3 uses laminates comprising two polypropylene, spunbonded substrates together and Example 6 uses laminates comprising a NBL bonded to a SBL. Examples 4-5 use laminates comprising a NBL bonded to an outer cover material comprising a polyethylene layer and a polypropylene, spunbonded layer. As noted in Zhou et al., in both Examples 4 and 5, the polypropylene, spunbonded layer of the outer cover material is contacted with the adhesive composition and bonded to the NBL. As such, all of the working examples support a laminated substrate being made by bonding similar first and second materials with the adhesive composition of Zhou et al.

As stated in M.P.E.P. §2131, a claim is anticipated only if each and every element of the claim is described in the prior art reference. As stated above, the '538 reference fails to set forth a sufficient enabling disclosure of ultrasonically bonding a first material and a second material that are dissimilar or non-bondable materials as required by claim 1. As such, the

Instant specification at page 11, paragraph 24.

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'538 reference fails to teach each and every limitation of instant claim 1. As such, claim 1 is novel and patentable over the cited reference.

Claims 2-10, 13, 16, and 26 depend directly from claim 1.

As such, claims 2-10, 13, 16, and 26 are patentable for the same reasons as claim 1 set forth above, as well as for the additional elements they require.

Claim 79 is similar to claim 1 and further requires the adhesive composition to have an open time of less than about 10 minutes. As the '538 reference fails to disclose a first material and a second material that are dissimilar or non-bondable materials and are ultrasonically bonded together, the '538 reference fails to teach each and every limitation of instant claim 79. As such, claim 79 is novel and patentable over the cited reference.

Claims 80-88, 91, 94, and 104 depend directly from claim 79. As such, claims 80-88, 91, 94, and 104 are patentable for the same reasons as claim 79 set forth above, as well as for the additional elements they require.

In view of the above, Applicants respectfully request favorable reconsideration and allowance of all pending claims. The Commissioner is hereby authorized to charge any fee deficiency in connection with this Letter To Patent And Trademark Office to Deposit Account Number 19-1345 in the name of Senniger Powers.

⁵ Zhou et al. at paragraph 59 and Examples 2-6.

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Respectfully Submitted,

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